ABSTRACT OF THE DISCLOSURE

A toolbox and method for processing data statistically in a MATLAB® environment of a computer. The method includes the steps of embedding input data and associated meta-data in a single object, and constructing the input data and associated meta-data into a plurality of statistical variables, wherein the plurality of statistical variables can be processed statistically. The method further includes a step of creating a contingency table from the plurality of statistical variables. In one embodiment of the present invention, the step of creating a contingency table from the plurality of statistical variables includes a step of creating the contingency table using the hypertext markup language, wherein the contingency table created by using the hypertext markup language is generated on a web page. Additionally, the method further includes a step of aggregating a dataset from the plurality of statistical variables. In one embodiment of the invention, the step of aggregating a dataset from the plurality of statistical variables includes the steps of providing a plurality of objects with same length, each object having a set of statistical variables, providing meta-data associated with the plurality of objects, and constructing a dataset from the plurality of objects and the associated meta-data, wherein all statistical variables in the dataset can be statistically processed at once using standard MATLAB® syntax. The method further includes the steps of providing a statistical model with control parameters, providing input data, constructing the input data and the control parameters into a single object, and processing the input data in the single object to produce an output according to the model. In one embodiment of the present invention, the input data and control parameters are adjustable. When the input data or control parameters are adjusted, the output is changed accordingly. The method also includes a step of viewing and documenting the changes in the output interactively through a MATLAB® based graphical interface. Moreover, adjusting the input data and/or control parameters can be performed interactively through a MATLAB® based graphical interface.

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